

THE

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NORTHERN PACIFIC

RAILROAD'S

LAND GRANT

AND THE

FUTURE BUSINESS OF THE ROAD.



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THE
NORTHERN PACIFIC RAILROAD'S
LAND GRANT.

THE charter granted by the Congress of the United States of America to the Northern Pacific Railroad Company, with its amendments, confers the right to construct a line of railroad and telegraph across the continent, between some point on Lake Superior in the State of Wisconsin or Minnesota, and some point on Puget Sound, *via* the valley of the Columbia river, by the most eligible route within the territory of the United States, on a line north of the 45th parallel of latitude, with a branch to Puget Sound, across the Cascade mountains from some convenient point on the main trunk line.

The charter grants the Company for each mile of track 20 alternate sections of public land (640 acres to the section) on each side of the line of the Road in the Territories, and 10 alternate sections on each side of the line in the States, through which it runs. This is equivalent to 25,600 acres per mile through the Territories, and 12,800 acres per mile through the States. It grants to the Company the right of way for their Road and Telegraph line through the public domain, to the extent of 200 feet in width on each side of the track, and all necessary ground for station-buildings, workshops, depots, machine-shops, switches, side-tracks, turn-tables, and water-stations. It grants to the Company the right to take from the public domain adjacent to the line of the Road, earth, stone, and timber for construction.

If by pre-emption, settlement under the Homestead Law, or other cause, the Company can not get the quantity of land per mile to which it is entitled by its charter, it may make up the deficiency anywhere within twenty miles beyond either limit of its land-grant.

The Indian titles to the land granted the Road, where any exist, are to be extinguished by the Government as rapidly as shall be necessary.

The term "Puget Sound" in the charter, is to be construed to mean "all the waters connected with the Strait of Juan de Fuca within the Territory of the United States."

Size of Land Grant.—The amount of land granted to the Northern Pacific Railroad by its charter, original and as amended, exceeds Fifty Millions (50,000,000) of acres. This superb estate is larger by 10,000 square miles than the six New England States. There is room in it for ten States as large as Massachusetts, each of them with a soil, a climate, and resources of coal, timber, ores of metals, and perpetual water-power, altogether superior to those upon which Massachusetts has become populous, rich, refined and politically powerful. The grant is nearly seven times as large as Belgium, or more than three and a-half times as large as Holland.

Climate.—The grant is within the parallels of latitude which in Europe, Asia, and America, embrace the most enlightened, creative, conquering and progressive populations. It is within the climatic conditions illustrated on the maps by the curvature Northwards of the isothermal lines of mean temperature which mark on the Pacific coast in latitude 47 North, the mildness of the climate of the Chesapeake Bay on the Atlantic side in latitude 38, and which give to the region of this railroad between the Great Lakes and the Pacific a milder atmosphere than is to be found anywhere else at the same distance North of the equator, except upon the Western coast of Europe. The summer isothermal line of 70 degrees, which in Europe passes through Southern France, Lombardy, and the wheat-growing region of Southern Russia, strikes the Atlantic coast of the United States at the East end of Long Island, and passing through Central Pennsylvania, Northern Ohio and Indiana, diverges northwesterly and runs up into the British Possessions to latitude 52, at least 360 miles North of the body of this land-grant.

In Minnesota in winter the mercury falls as low as in New England, but, owing to the singular stillness and dryness of the atmosphere, and the uniformity of the temperature—the absence of sudden changes—the winter is one of the pleasantest of the seasons, and one is more comfortable there with the same clothing than in the damp winters of Illinois and Pennsylvania. From Minnesota westward to the Pacific coast, along the line of the Northern Pacific Road, the climate, as is

well known, grows steadily milder until at Puget Sound, as in California, there is scarcely any winter at all, and two crops of vegetables can be grown in a season. This remarkable modification of climate, whose existence no well-informed person now questions, is due to several natural causes, chief among which is the warm current in the Pacific Ocean, corresponding to our Atlantic Gulf-Stream, which strikes the coast at Puget Sound, and whose softening effect extends far inland, giving to our Northern belt of States and Territories a milder climate than that which prevails several degrees southward. A second cause is the low altitude of the country along the northern route, the highest point on the Northern Pacific line being 3,000 feet lower than the most elevated summit on the Central line. And this proportionate difference in elevation holds good throughout almost the entire distance across the continent—amply explaining the seeming paradox of going northward to find mild weather. That the climate of that New Northwest, which is now to be opened to settlement, travel and trade, is such as to make it a congenial home for the migrating millions of central and northern Europe, and the crowded portions of our own land, there is no doubt. That its soil, its resources of minerals and timber, its matchless water-courses, and its accessibility to the commerce and the markets of the world, also adapt it to be the residence of a numerous and thrifty population, is equally unquestionable.

For statistics substantiating these statements, we refer to the official table of mean temperatures published on page 22.

Commercial Advantages.—This imperial landed domain of over 78,000 square miles of area, is bounded on the West by 128 miles of land-locked harbor unequalled on the globe for depth of water, exemption from rocks, reefs and shoals, and excellence of holding ground. From West to East it is traversed by several of the principal navigable rivers of the continent, upon which commerce by steamboat has long been established. On the East it rests on the greatest of the Great Lakes, the head of continuous navigation to New York, Quebec and Europe.

It is flanked on the North by the tributary "Fertile Belt" of the Hudson Bay Company's territory, which, stretching from the Red River to the Rocky Mountains, contains 72,000 square miles of agricultural soil, as rich as the prairies of Illinois.

Intersected at convenient distances by the Mississippi, the Red River of the North, (whose navigable confluent drain the "Fertile Belt,") by the Missouri, the Yellowstone, the Clarke, the Columbia, and

the Cowlitz, all now navigated by steamboats, this land-grant of the Northern Pacific Railroad is amply supplied with feeders and outlets for the concentration and distribution of freights and passengers upon and from its line.

The road will form a connecting link over a thousand miles long between navigable waters in the United States, and will give a combined length of railway and river navigation of not less than 4,000 miles, the whole of which will be, commercially and financially, subsidiary to this Land Grant.

Timber.—Unlike the lands of any and all other routes of trans-continental railway, the Land Grant of the Northern Pacific Railroad has ample supplies of timber for the construction and maintenance of its line, and for the supply of its future population; and this is so situated that it may be transported from either terminus over the road as fast as constructed, and at the same time distributed east and west from the Rocky Mountain centre, and from numerous other points on nearly the entire length of the line.

The materials for the greatest Lumber Trade the world has seen exist on and near the Western end of this Land Grant, and maintain with a single interruption to the Eastern foot of the Rocky Mountains. Forests of fir of three varieties, of cedar of two varieties, of pine, spruce, hemlock, cypress, ash, curled maple, and black and white oak, envelope Puget Sound, and cover the larger part of Washington Territory, surpassing the woods of all other countries in the size, quality and quantity of the timber. The firs in many localities will cut 120,000 feet to the acre. Trees are common whose circumference range from 20 to 50 feet, and whose heights vary from 200 to upwards of 300 feet. The paradox of firs too large to be profitably cut into lumber, is to be seen all over western Washington. The cedars of Washington are as thick through as the firs but not so tall. Forests yielding 100,000 feet and upwards per acre are common all around Puget Sound. The wood of the firs and cedars, unequalled for lightness, straightness of cleavage, and resistance of moisture, stronger than oak and more retentive of spikes and tree-nails, will supplant all other timber for ship-building on both shores of the Pacific Ocean. Last year Puget Sound exported above 150 million feet of lumber, 20 millions of lath and shingles, and an immense amount of masts, spars and piles. The product of the as yet scarcely scarred forests of Washington Territory, was sold in California, South America, Australia, Japan, China, the East Indies and Europe. It furnished lading to 113 ships, 491 barks, 45 brigs, and 87 schooners.

Coal.—This Land Grant has an abundance of fuel—coal, lignite, and wood. Bituminous coal of a good quality outcrops for 30 miles on the eastern rim of Puget Sound. Three veins have been opened which can be cheaply worked, the lowest being 16 feet thick. West of the Cascade range of mountains coal is found and mined at different points all the way from Willamette Valley to Bellingham Bay. It has been found near the Cowlitz and Snoqualmie Pass of the Cascades. It outcrops on the Yellowstone and the headwaters of the Missouri. It is extensively mined for government and public use at the great bend of the Missouri. It is certainly known to underlie the entire area from the Rocky Mountains to the Mississippi on the proposed line of the Northern Pacific Railroad. In Minnesota it has been discovered on a tributary of the river of that name, and on the Sauk. In Dakota it outcrops on the banks of the Cheyenne.

Other Minerals.—From the eastern foot-hills of the Rocky Mountains to Puget Sound, this Land Grant belts the richest mineral deposits on this continent, consisting of gold, silver, platinum, lead, copper, iron and rock salt. The banks and bars of nearly every stream running from the Rocky range into the Columbia, Yellowstone, Missouri, and Puget Sound will pan out gold. At the Eastern end of the Grant, and on or near the line of the Road, are inexhaustible deposits of copper and of the famed Lake Superior magnetic iron ores. At an early day the Road will undoubtedly supply itself with rails from the abundant deposits of iron ore distributed at various points along its line.

Mildness and Fertility.—The mildness of the climate of our Northwestern belt of States and Territories, singular as it may seem, is abundantly testified to by man and beast. The domestic cattle of Montana, Idaho, Washington, and Dakota, range out all winter and are fat in March. The Mexican horses stolen by the Sioux, Cheyennes, and Assiniboines, are turned out to shift for themselves on the fall of snow, from latitude 45 up to 53, and come in in the spring fat, sleek and strong. Unsheltered, unfed, they thrive in the open air on grass reached by pawing off with their hoofs the occasional covers of snow. Much of the line of the Northern Pacific road passes through the winter homes of countless herds of buffalo, elk, deer, and antelope. These animals are invariably spring fat, and never "spring poor."

The region in all its parts has been surveyed and reported upon by scientific officers of the U. S. Army—has been hunted over and "prospected" by trappers and gold miners. Their testimony as to the richness of the soil, its capacity for dense population, the mildness

of its climate, its remarkable salubrity, and its comparative exemption from snow, is uniform and positive. Pages of incontestible evidence could be introduced here to prove that nowhere in the world can larger crops of wheat, barley, rye, oats, potatoes, and other roots be raised than on and about the Land Grant of the Northern Pacific Railroad; that nowhere in the world are there finer apples, pears, plums, and cherries, than those grown on and about all the Grant west of the Rocky Mountains; that fruit trees there invariably bear generally in two, at most in three years, from the graft; that the curculio and other insects destructive to fruit here are unknown there. None of our tame grasses can compare with that combination of timothy and oats, the "Bunch Grass," which covers most of this Land Grant; nowhere is such possibility of grazing cattle in vast herds without shelter, prepared fodder, or care, as exists all over the regions to be traversed by the Road on both sides of the Rocky Mountains, whose universally diffused "Bunch Grass" has justly given to it the name of "the grazier's paradise."

Various Resources.—We could begin on the prairies of Minnesota and end upon the rich clay loam which fringes Puget Sound, and quote from well-known and undisputed authorities, for the average of the Land Grant of the Northern Pacific Road as hearty appreciation, as QUINCY A. SCOTT uttered in his letter, thus briefly summing up the characteristics of the Yellowstone Valley: "When I say he missed "seeing the best valley of them all, it is not doing half justice to the "Yellowstone. Some of the other valleys are beautiful. *This is grand.* "It abounds in magnificent scenery, most excellent farm-sites and "water-powers. The soil is very rich and fertile, timber very convenient, coal and iron cropping out in abundance at different points, "and at others evidence of rich deposits of copper, while the surrounding mountains are full of gold and silver-bearing quartz. In "addition to this—if the Road is built in this valley, it will settle up "so rapidly, and the whites will be in such force, that the Indians will "be driven out of the Big Horn and Wind River valleys and mountains, "and we shall thus have easy access to a section of country which, if "half the tales told by mountaineers, explorers, and even Indians, are "true, is teeming with gold and silver."

Governor MARSHALL, of Minnesota, who rode over the line between Fort Totten and Fort Stevenson, in July, 1869, says of it: "The country west of the Red River valley across to the Missouri river is a "fertile plain covered with nutritious grasses, but destitute of timber."

[It can get more than it wants from Minnesota and Wisconsin.] "The banks of the Cheyenne river, the shores and islands of Lake Minniewaken, and of a few other streams and lakes, have trees upon them. The soil seems everywhere good, and the surface is favorable for farming." The U. S. Land Commissioner, in his report for 1869, says: "The Northern Pacific offers a pretty safe guarantee against those formidable obstructions from snow, which the more southern route has already experienced. The undeveloped resources of this company are attracting the attention of capitalists. Its landed subsidy is double that of the Union Pacific road. Comparatively a very small proportion of this line runs through an elevated region. Governor Stevens was of the opinion that not more than one-fifth of the land from Red River to Puget Sound is inarable, and that this is largely made up of mountains covered with valuable timber. It is evident that an immense agricultural area is here awaiting development. The great wheat growing regions on the left bank of the upper Missouri promise speedy settlement upon the opening of an avenue for the transportation of their products to market. Each section of the road as it is completed will, from local traffic alone, find ample returns for its investment."

The Valley of the Cowlitz can be made a wheat garden. The record of the production of wheat in the Columbia valley shows that its soil is equal to that of the Cowlitz. The Walla Walla land is as good as that of the Columbia—sixty bushels of wheat to the acre, weighing sixty-three pounds to the bushel, roses and other flowers blooming in the open air on Christmas day, and fruit for market in two years after transplanting of the grafts, being its titles to rank. The valleys of the Pelouse, Snake, Spokane, Bitter-root, Jocko, Flathead, and Deer Lodge, are as rich as that of the Walla Walla. The settlers in the Gallatin, Madison, and Jefferson valleys, claim to live in an Eden of fertility and climate. Hon. William Windom, now United States Senator, in his speech to the House of Representatives, in 1869, thus describes the lands between the Mississippi and Red Rivers, a part of the grant of the Northern Pacific Railroad: "It is one of the most beautiful sections of country in the world, and you travel comparatively a short distance west of St. Paul till you feel the influence of the Pacific winds and strike the isothermal line of southern Illinois, and where cattle can pasture the whole year." Governor Marshall has reported of this region: "The area of this district of northern Minnesota and the Red River valley in Dakota, through which the

“Northern Pacific Railroad will run, and to which it will pour out its
 “wealth of production, is scarcely less than 60,000 square miles, or
 “38,400,000 acres. Its capacity for producing the cereals may be
 “estimated from the present production of the tilled lands of Minne-
 “sota. The reliable estimates of the Commissioner of Statistics of
 “Minnesota gives the area cultivated in 1869, at 1,100,000 acres,
 “(about 2 per cent. only of the whole area of the State,) and the
 “yield of this area the present year at over 20,000,000 bushels! Upon
 “this basis, the northern district I have described is capable of
 “producing the enormous quantity of over SIX HUNDRED MILLION
 “bushels—many times greater than the entire wheat crop of the
 “United States, and equal to that of the whole world! The valley of
 “the Red River alone, I believe, is capable of producing breadstuffs
 “for the whole United States.”

What, then, is the Land Grant of the Northern Pacific Railroad worth?

Compared with other Grants.—A second measure of its value may be taken from the sales of the lands granted by Congress to the Illinois Central Railroad, to the Kansas Pacific Railroad, and the sales of the Minnesota School Lands.

The Illinois Central received a Land Grant of 2,595,000 acres, mainly treeless and waterless prairie. Sales from this grant up to January 1, 1869, had amounted to \$23,793,255, including interest on deferred payments, and there remained unsold 526,690 acres, worth \$10 per acre. In other words, the Illinois Central's grant of 2,595,000 acres, when all sold, will have yielded the Company fully \$30,000,000—an average of more than \$11 per acre, and more than the total cost of building the road.

So safe were the credit sales of these lands, that at the close of the year 1867, upwards of 15,000 individual accounts were on the Illinois Central Company's books, and not a suit or a claim was pending in court in relation to any one of them.

Financiers and dealers in public and corporate funds may better appreciate the value of the Illinois Central grant from the fact, that in 1868, the Company paid its stockholders dividends amounting to 22 per cent., and the public bought its shares at 147. At the bottom of this prosperity and confidence was a Land Grant of 2,595,000 acres. The Northern Pacific Road's grant is *twenty times* as large as the Illinois Central's, and on the question of the comparative *intrinsic* worth of the two grants, we have the published opinion of John Wilson, who

organized the Land Department of the Illinois Central Road, and was for many years its honored Commissioner. Mr. Wilson says: "With all the information I have collected, and an experience enjoyed by but few, I consider the grant to the Northern Pacific Railroad *worth from fifty to one hundred per cent. per acre more than the Central's*. Comparing this grant with the Illinois Central Railroad grant, I think it a small estimate to say that if this grant is properly managed, it will build the entire road, connecting with the present terminus of the Grand Trunk, through to Puget Sound, and head of navigation on the Columbia—*fit out an entire fleet of sailing vessels and steamers for the China, East India, and coasting trade, and leave a surplus that will roll up to millions.*"

The Kansas Pacific Railway has adopted the policy of disposing of its lands principally to an influential Immigration and Land Company, so as to force the settlement of the uninhabited region through which it runs. In 1869, it disposed in this way of 428,568 acres, at prices varying from \$1.00 to \$8.00 per acre. The road received on an average, \$3.35 per acre for soil that is within the limits of what is described on American atlases, as "The Great American Desert." For one tract of 46,823 acres the road received \$3.30 per acre. The Immigration Company received for these lands an average of \$4.31 per acre, which sum really should be the measure of their value for that year. And they are worth that price—but the lands are not so valuable nor so saleable as are those of the Northern Pacific road, as settlers, the officers of the army, and the "freighters" across the plains and mountains, and the fur-traders and trappers will unanimously testify.

The School lands of northern Minnesota will be in part within the limits of the Northern Pacific Railroad grant in that State. The average price at which they were sold in 1865 was reported to the Minnesota Legislature as \$6.30 per acre.

Now, what is this great landed empire of 50,000,000 acres worth? If it sells for only the low price per acre at which the Kansas Pacific road forced off its lands, while it ran through and stopped in a wilderness of buffalo grass, the proceeds will be over \$165,000,000. If nursed and sold on judicious credits, as were the lands of the Illinois Central, the proceeds would be, on the basis of that road's sales, \$550,000,000! If sold at the average price of the Minnesota School lands, the proceeds will be \$350,000,000. The elements for appraising the market value of the Northern Pacific Land Grant sufficiently exist to make it absolutely certain that it can be sold for a sum much greater than the

cost of constructing and equipping the road. The policy of the Company, however, will be to sell its lands at such moderate prices as to render their speedy absorption and settlement certain, rather than hold them for an extreme advance, at the expense of the development of the country.

The Land Grant and the Construction Bonds.—At the inconsiderable valuation of only \$2.00 per acre, this Land Grant alone is a perfect security for the amount of bonds that will be issued to construct and equip the Road.

The bonds are in terms, upon their face, receivable in payment for the Company's lands, to be selected by the investor, and not only so but, as elsewhere stated, in all cash sales of lands a discount of ten per cent. will be made from the lowest cash price whenever Northern Pacific Railroad bonds are offered in payment. In the hands of German or other European investors, these bonds are equivalent to drafts drawn upon the Public Land Department of the United States, accepted by the Government, and bearing interest from the day of acceptance. The German proposing to emigrate, can buy at home, a year or two years before undertaking his journey, the land on this domain which he desires to occupy, or the right at any time to select such land, and be all the while in receipt of the interest upon his capital, payable in gold, semi-annually.

FUTURE BUSINESS OF THE ROAD.

IN this brief consideration of the resources of the Northern Pacific Railroad, there remains the question: "What business will the completed road have?"

The business it will have is of two classes—that which exists now, and that which will be developed.

Existing Business.—1. The road will run through the vast interior traffic that now supports nineteen steamers of the Oregon Steam Navigation Company, which navigate the lower Columbia, the upper Columbia, Clark's Fork, the Snake River, Lake Pend d'Oreille, and Puget Sound. The dimensions of this traffic in Oregon, Idaho, Washington and Montana may be judged by its profitableness. The Company was organized in 1860, with a capital of only \$172,500. Up to June last, it has expended over \$2,000,000 in the construction of steamers, railroads around the Dalles and Cascades, wharves, etc., and paid its stockholders, besides, over a million of dollars in gold as dividends!

2. Of the enormous existing lumber trade in Puget Sound we have given a glimpse. Westward by sea is the direction of that. The railroad will create as large a trade Eastward. Puget Sound is as famous for its wealth of salmon and other fish as for its timber. These fish will supply an immense traffic.

3. The railroad will do most of the business now done by the Missouri River steamboats.

4. It will take very much of the immense business now done all over the Northwest by pack animals and wagon trains.

5. It will perform the most profitable part of the mail service of five States and Territories, and ultimately carry the Chinese and Japanese Mails.

6. It will perform much of the wagon service in transporting supplies to the twenty-eight northern military posts, which now costs the Government \$6,158,972 per annum.

7. It will at once enjoy that large portion of the Through business, between the Atlantic and Pacific Oceans, and between Asia and Europe, which cannot fail to pass over this line owing to its great

advantage over all other trans-continental routes in *shortness, directness and ease of grades.*

Business to be Developed.—An approach to a statement of the business which the Northern Pacific Railroad will develop may well be made through the experience of the Kansas Pacific road which was left by Congressional legislation incomplete, and at a dead stand-still, in the heart of the “buffalo range,” 375 miles west of the Missouri river, and hundreds of miles east of any town, cultivated field or mining camp. At that point in the desert, a trade with New Mexico and Arizona, in wool, hides, wine and ores was born, and a trade with the shepherds, herdsmen, and miners of the larger part of Colorado. Previously, and farther east, a new trade in Cherokee and Texas cattle, on their way by all-rail to Chicago and New York had been created. Here are the figures of the business of this road that “ended nowhere,” for the year 1869:

Freight—Ordinary	\$1,128,848 50	
Freight—Government	227,358 06	
Freight—Denver Extension	144,212 71	
		\$1,500,419 27
Passengers—Ordinary	\$536,478 52	
Passengers—U. S. Troops	85,313 42	
Expresses	30,179 25	
U. S. Mails	65,550 00	
		\$717,521 19
Miscellaneous sums—Rents, &c.		7,909 65
Total		\$2,225,850 11
Working Expenses		1,386,180 02
Net proceeds to balance		\$839,670 09

Comparisons, proverbially, are odious. Without contrasting the characteristics of the region through which the Union Pacific and Central Pacific lines run, with that which will supply way-freight and way-travel, as well as through-business, to the Northern Pacific Road, we will only say that for the year 1869, the receipts of the Central Road were \$5,749,595 in gold. The receipts of the Union Pacific (which was not completed till June, 1869,) for the year 1869 were reported to be sufficient to pay all the interest on the Construction Debt of the road, and two per cent. on its Stock. The undersigned have received assurances from Directors of the road that it will this year (1870) earn six per cent. for its stockholders, besides interest on its Debt.

Emigration.—We have spoken of the large local traffic which already awaits the construction of the road, to be furnished by the present population of the States and Territories traversed by it, for whom this line will for years be the only outlet to the Atlantic and Pacific

seaboards. A great business which the Northern Pacific Road will create will come through the distribution of European and American immigrants, colonists and laborers, over the rich farming and grazing districts of the Northwest, and the gold and silver districts of Washington, Montana and Idaho. By means of a comprehensive and practical Emigration scheme, now organizing under the direction of the Trustees, such a tide of population, both European and American, will at once be turned into this fruitful New Northwest—a tide already moving—as will not only speedily absorb and cultivate the Company's Land Grant, but will also rapidly settle and develop the entire belt of productive country tributary to the road. The local needs alone—the transportation of the supplies and products—of such a population will easily furnish a remunerative traffic for one line of road.

Another immense business which the Northern Pacific Road will develop will be the manufacture of cotton and woolen goods, and of iron, steel, copper, and lead. The water-power on and near the line of the road is unsurpassed anywhere. It never fails. The snow-clad mountains feed it when the rain ceases to fall. And it exists everywhere in close connection with rich agricultural soil. Rivers, having aggregate lengths of thousands of miles, flowing for short distances between rapids in volume deep and broad enough for the largest steamboats, now waste innumerable powers which exceed that of the Merrimac at Lowell! The affluents of the Columbia and Missouri will soon whirl spindles, work hammers, blow fires, and turn shafting, as cheaply as any other power in the United States can do it. They can do it, too, without interruption 365 days in the year.

The Northern Pacific Railroad will change the whaling business of the United States. Puget Sound is only 18 days from the best ground left to the American harpooners. It is the cheapest and best place in the Pacific in which to fit out, refit, repair and discharge. If it shall be deemed economy to ship the proceeds of voyages home to New Bedford by vessel, Puget Sound is certainly a better place to do it from than the Sandwich Islands. The business has already been planted on the Sound, and its growth to large proportions is certain.

Kindred to this whaling business, and of even larger dimensions, will be the taking and curing of cod, hake, and halibut upon a line of soundings extending past Alaska and the Aleutian chain of islands, making with the main land a coast line of nearly 3,000 miles in our own territory enriched by fisheries which in value will vie with those of Newfoundland, which have for centuries fed the nations of Western and Southern Europe.

The trade in live cattle and refrigerated meat over the Northern Pacific Road will exceed that upon any line in America. The "bunch grass" covers valleys and mountains. It is grass in summer and cured hay in winter. No drouth kills it—no heat diminishes its nutritive qualities. Wherever it grows the cattle require no shelter in winter, nor other food. Sheep and cattle can be raised on and about the Northern Pacific Railroad lands absolutely without current expense save of herding.

On four or five different meridians of longitude there will be built branch roads running down to the Northern Pacific from the "Fertile Belt," in the British Possessions. The easternmost of these feeders is now under construction—that down the Red River valley to the British line at Pembina. It will make tributary to the Northern Pacific Railroad 1,800 miles of navigation through a rich and already populated country.

THE NORTHERN PACIFIC ROUTE IS THE ONLY TRANSCONTINENTAL LINE WHICH FROM THE ATLANTIC TO THE PACIFIC WILL BE UNDER ONE CONTROL. It alone will offer to trade and travel a direct and uniform communication from ocean to ocean, free from interruptions and exactions arising from separate or hostile interests.

Two-thirds of the forty millions of people who now occupy the United States, are nearer by the Northern Pacific Railroad line to the mouth of the Columbia River and Puget Sound than to any other part of the Pacific coast.

There can never be a rival to the Northern Pacific route. The "Fertile Belt" in the British Possessions is isolated from Canada. British engineers have reported that the country north of Lake Superior is utterly impracticable for a railroad.

Through Traffic—Altitudes and Distances.—Again, the Road's revenue is to be derived first, from its way-traffic and way-travel; second, from its through-traffic and through-travel. The amount of the first will depend on the soil, climate, timber, fuel, minerals and water-power of the country bounding the line. The amount of the second will depend on the superior economy the use of the line will offer to the public.

In inverse order, the line of the Northern Pacific will be the cheapest to the commerce and travel of the world because it will be the shortest of the American trans-continental highways. It is 630 miles nearer on a measured line from Lake Superior to Puget Sound, than it is from Chicago on Lake Michigan to San Francisco. This economy

in favor of the Northern Pacific route will be increased by adding to it the equated distances arising from the difference in its favor of the ascents and descents of the grades of the two lines. Here are the figures :

	MILES.	AVERAGE HEIGHT ABOVE THE SEA.
To Dakota Valley	300	1,200 feet
Yellowstone River	300	2,200 "
Along Yellowstone	400	2,500 "
Flathead Valley	300	3,500 "
Lewis or Snake River	200	3,000 "
Puget Sound	500	400 "
Lake Superior to Puget Sound		
<i>via</i> Portland	2,000	
Direct Line	1,775	

Compare these distances and altitudes with those of the profiles of the finished line of the Union Pacific and Central Pacific roads :

FROM CHICAGO.	MILES.	AVERAGE HEIGHT ABOVE THE SEA.
To Omaha	491	1,000 feet.
Cheyenne	516	3,300 "
Cooper's	86	7,300 "
Promontory Point	482	6,200 "
Humboldt	408	4,750 "
Reno	130	4,000 "
Auburn	118	4,400 "
Sacramento	36	300 "
San Francisco	138	50 "
Chicago to San Francisco	2,405	

Engineers allow one mile for every 52.08 feet of rise or fall to denote the additional "working expense" of an unlevel road as compared with a level one.

Of the Northern Pacific Road only about 60 miles are as high as 4,000 feet above the sea. On the Chicago and San Francisco route, the distance from Omaha to Sacramento is 1,774 miles. The average altitude of 1,120 miles of this distance is 5,230 feet above the sea, while the lowest point in it is elevated 3,920 feet above the sea level. On the San Francisco route, 1,100 miles have an actual altitude of over 4,000 feet, 620 over 5,000 feet, 350 miles over 6,000 feet, and 110 miles over 7,000 feet. The Sherman summit is up in the clouds at an elevation of 8,235 feet. The ridge of the Deer Lodge Pass, the highest

elevation on the line of the Northern Pacific Road, is only 4,950 above the sea. The elevated grades of the Central and Union Roads compared with the low grades of the Northern Pacific line, will suggest obstruction by heavy falls of snow. Such obstructions are certainly an element of cost in the operation of railroads. Every 1,000 feet of elevation causes a fall of mercury in the thermometer of 3 degrees.

The Northern Pacific Road will be the shortest and therefore fastest and cheapest route of commerce and travel between Asia and Europe. The comparative distances between London, New York, Philadelphia, and Baltimore, and Shanghai in China, Hakodadi in Japan, by the two routes, the San Francisco and Puget Sound, are as follows:

DISTANCES.				STATUTE MILES.
London to Shanghai via Mediterranean and Red Sea,	.	.	.	11,800
“ to Yeddo “ “ “ “	.	.	.	13,000
“ to New York,	.	.	.	3,620
Chicago to San Francisco via Union Pacific R. R.	.	.	.	2,405
“ to Puget Sound (Seattle) Northern Pacific R. R.	.	.	.	2,140
New York to San Francisco via Chicago,	.	.	.	3,323
“ to Puget Sound “ “ and Northern Pacific R. R.	.	.	.	3,040
Philadelphia to San Francisco via Chicago and Union Pacific R. R.	.	.	.	3,243
“ to Puget Sound “ “ and Northern Pacific R. R.	.	.	.	2,960
Baltimore to San Francisco “ St. Louis and Union Pacific R. R.	.	.	.	3,290
“ to Puget Sound “ Chicago and Northern Pacific R. R.	.	.	.	2,977
San Francisco to Shanghai “ Sandwich Islands,	.	.	.	7,860
“ to “ “ Midway Islands,	.	.	.	7,100
“ to Hakodadi, direct route,	.	.	.	4,800
Puget Sound to Shanghai via Alaska Peninsula,	.	.	.	5,716
“ to Hakodadi “ “	.	.	.	4,400
New York to Shanghai via Chicago, San Francisco and Midway Islands,	.	.	.	10,423
“ to “ “ “ Northern P. R. R. and Puget Sound,	.	.	.	8,756
Philadelphia to “ “ “ San Francisco and Midway Islands,	.	.	.	10,343
“ to “ “ “ Northern P. R. R. and Puget Sound,	.	.	.	8,675
Baltimore to “ “ “ St. Louis, U. P. R. R., S. Fran. Mid. Is.	.	.	.	10,390
“ to “ “ “ Northern P. R. R. and Puget Sound,	.	.	.	8,658

In the fact that it is 1,667 miles nearer from New York to Shanghai by way of Puget Sound, than it is by the way of San Francisco, lies the control by the Northern Pacific Railroad of the trans-continental trade between China and Europe. No route can compete with this.

To this advantage of the shorter line, which the Northern Pacific possesses over all other routes, add the advantage in time and economy to be derived from the fact, that owing to the prevailing winds and

currents of the Pacific Ocean, ships from Japan and China bound to United States ports, even farther south than San Francisco, are compelled to make northing, which brings them on the parallel of Puget Sound, which is 800 miles above San Francisco. To sailing vessels this makes a difference between Puget Sound and San Francisco, in favor of the former, of from eight to fourteen days—to steamers, of from four to five days. So that this commercial incident will be witnessed: two ships loaded at Shanghai for New York—one bound to San Francisco and the other to Puget Sound—the latter will have delivered her cargo to the Northern Pacific Railroad, the cargo will have been received in New York and sold, and the sale announced by telegraph before the former will have cast anchor in San Francisco Bay.

When the Northern Pacific Road is in operation the Pacific coast can be reached by it from New York city in four and a half days. The voyage from Puget Sound to Shanghai will occupy from eighteen to nineteen days. From London and Paris the entire journey to Shanghai can be made in thirty-two days, which will be reduced to twenty-six when a continuous line of railway is completed from Halifax to Ogdensburg.

It is within three miles as near by water to New York from Duluth on the western end of Lake Superior, as it is from Chicago on the southern end of Lake Michigan. Lake Superior, the eastern terminus of the Northern Pacific Railroad, carries deep water navigation more than four degrees of longitude farther west than Lake Michigan does.

The Road in Winter—No Obstructions.—We will not farther cumber this statement, which we desired to make brief, and which for its uses should be brief, save to show that the line of the Northern Pacific Railroad will be less obstructed by snow in winter than any other across the continent. It is farther North than the others—but the difference of from 5 to 6 degrees of latitude is more than compensated by the *reduced elevation* above the sea-level, and the *climatic effect of the warm Ocean currents* from the equator, and of the “river of warm air” our army officers have described as flowing like the Gulf-stream northward past the Wind River chain to the sources of the Columbia and Missouri, and of the “draw” through all the passes of the Cascade Mountains, of the warm trade winds from the Pacific, to the blessing of man, beast, tree, and vegetable on the west side of the Rocky range and a long way eastward of it, too. In the Deer Lodge, Bozeman, and other passes, cattle range and feed fat the winter through. Testimony without end can be adduced to prove the extraordinarily light snow-

falls in these passes, and on the line of the road generally. It is a complaint against the climate of Puget Sound that in not one winter in three will it make ice that can be stored for summer use. Walla Walla has frequently to put up with ice an inch and a-half thick as the utmost its winter can accomplish. All Washington Territory is open to rebuke for unseasonably blooming flowers of over 25 varieties between December 20th and May 1st. On the whole line of the road from Lake Superior to Puget Sound consumption is an unknown disease among white men.

The mean elevation above the sea of the country along the line of the Northern Pacific Road from Lake Superior to Portland in Oregon, is only 2,000 feet—from Lake Superior to Seattle on Puget Sound only 2,200 feet.

It is now made certain that the backbone of the main range of mountains which separates the drainage of the continent, is broken down for a distance of more than three hundred miles where the sources of the Missouri and the branches of the Columbia interlock, and that within this distance are not less than a dozen Passes, between latitudes 45 and 49, all of which are practicable, which do not differ much in their altitude above the sea, and all of which serve as gateways for the flow, eastward and northward, of the warm air of the Pacific coast.

The Select Committee on the Pacific Railroad, in their Report laid before Congress and ordered to be printed on the 16th of April, 1860, say of the climate of the Northern Pacific route: “The undersigned are “satisfied that the objections which have been urged against this route “on account of the severity of the climate, and the depth of the snow, “are utterly untenable. The snow is absolutely less on the northern “than on the central route. It is notorious that it is small through the “prairie region from Minnesota to the Rocky Mountains; and the explorations have furnished significant and reliable facts, removing entirely all doubt as to its being a serious difficulty in crossing either of the “mountain ranges. In the Flathead country and on the great plain “of the Columbia there is less snow than in the prairie region east of “the Rocky Mountains. Indeed, throughout the entire extent of the “route, cattle and stock keep in good condition in winter without fodder. The quantity of stock in the interior of Washington and Oregon and east of the mountains, which thrives solely upon the winter “grass, is very large. During the past winter the stock of Captain “Mullan, of the artillery, in charge of the Fort Benton and Walla “Walla wagon-road, has been subsisted on the grass of the Bitter Root

“valley, and at the last accounts (the middle of January) was doing well. It is not necessary to elaborate this question of climate, as the information given in the reports of the explorers is very full and convincing.”

To serve to correct, particularly among Europeans, the error into which uninformed geographers have educated the world in regard to the climate of Northwest America, we recall to readers the fact, that the general line of the Northern Pacific Railroad is 150 miles south of the latitude of Paris, in France.

JAY COOKE & CO.

NEW YORK, March 10, 1870.

POSTSCRIPT.

Since this pamphlet was originally published the Saint Paul and Pacific Railroad has been purchased by, and practically consolidated with, the Northern Pacific. The purchased line (main and branch) embraces some 300 miles of finished Road in full operation, on which a prosperous traffic is already doing. When completed, as they will be at an early day, the main line will extend from Saint Paul, through western Minnesota to such point as shall be deemed most advantageous, and the “branch,” reaching from Saint Paul north-westwardly, will intersect the Northern Pacific line west of Crow Wing, and extend on to the British border at Pembina on the Red River, thus securing at once the carrying trade of British America. The purchased lines have liberal land grants through the richest parts of Minnesota, which accrue to the Northern Pacific Railroad Company, and the completion of these lines will give the Northern Pacific Company nearly Nine Hundred Miles of road in this great State.

The effect of this consolidation is to remove all hurtful rivalry, and virtually give the Northern Pacific Railroad a double eastern terminus—one arm reaching to Saint Paul where it taps the commerce of the Mississippi River at the head of navigation, and connects with the Illinois and eastern system of roads;—the other arm extending to Duluth, where it meets the commerce of the great Lakes and the Saint Lawrence.

COMPARISON OF MEAN TEMPERATURES.

PLACES.	LAT.	LONG.	ALT.	SPR'G	SUM.	AUT.	WINT	MEAN
	° /	° /		° /	° /	° /	° /	° /
Astoria	46.11	123.48	50	51.1	61.6	53.7	42.4	52.2
Steilacoom	47.10	122.25	300	49.2	62.9	51.7	39.5	50.8
Fort Vancouver	45.40	122.30	50	51.9	65.6	53.5	39.5	52.6
Dalles	45.36	120.55	200	53.0	70.3	52.2	35.6	52.8
Walla Walla	46.03	118.25	579	51.9	73.1	53.6	34.1	53.2
Lapwai	46.27	117.00	1240	51.0	70.3	52.2	36.9	52.4
Fort Owen	46.35	113.55	3284	47.0	69.6	45.5	27.6	47.4
Camp Stevens	46.20	113.55	3412	48.0	69.6	48.6	24.9	47.0
Fort Benton	47.49	110.36	2780	49.9	72.8	44.5	25.4	48.2
Fort Union	48.00	104.00	2022	44.1	70.1			
Fort Clark	47.00	100.45	1876				13.2	
Fort Pierre	44.23	100.12	1660	51.0	75.0	57.1	24.6	51.9
Fort Garry	50.15	97.00	860	35.8	67.8	49.9	6.8	38.8
Pembina	49.00	97.00	900	34.3	71.7			
Fort Ripley	46.19	94.19	1130	39.3	64.9	42.9	10.0	39.3
Fort Snelling	44.53	93.10	820	45.6	70.6	45.9	16.1	44.6
Milwaukee	43.02	87.57	600	42.3	67.3	51.1	26.0	46.4
Mackinac	45.51	84.51	728	36.7	62.0	43.8	20.0	40.6
Lake Temiscaming, Ottawa . .	47.19	79.31	630	37.6	65.2	40.1	15.0	38.6
Toronto	43.39	79.21	341	41.1	64.8	46.6	24.5	44.3
Fort Coulogne, Ottawa	45.50	77.52	250	41.2	67.1	44.2	14.7	48.8
Albany, N. Y.	42.31	73.44	130	46.7	70.0	50.0	26.0	48.2
Chicago	41.52	87.40	590	45.0	67.1	48.5	26.0	46.7
Montreal	45.30	73.35	90	43.7	70.8	46.9	17.2	44.6
Quebec	46.49	71.16	300	38.6	65.3	44.0	13.3	40.4
Portland, Me.	43.40	70.20	150	40.1	63.4	46.3	21.6	42.9
Fort Kent, "	47.15	68.35	575	32.2	61.7	39.9	11.3	37.0
Houlton, "	46.07	67.49	620	39.1	63.3	43.2	16.4	40.5
Frederickton, N. B.	46.03	66.08	50	40.0	64.6	46.7	18.2	42.4
Halifax	44.39	63.37	20	39.3	60.3	48.3	24.7	43.2
Charlottetown, Pr. Ed. Island .	46.12	63.00	00	39.0	66.1	47.6	23.3	44.0
St. John, Newfoundland : . . .	47.33	52.43	140	32.3	54.0	43.8	23.2	38.3
St. Petersburg	59.56	30.19	00	35.9	60.6	40.3	18.1	38.7
Moscow	55.48	35.33	426	41.0	64.0	39.9	15.2	40.0
Vienna	48.13	16.23	480	51.6	69.4	52.2	31.9	51.0
Paris	48.50	2.20	120	50.6	64.5	52.2	37.8	51.8

CONFIRMATION

OF THE

STATEMENTS IN THE PRECEDING PAMPHLET.

OPINION OF
PROFESSOR ROBERT VON SCHLAGINTWEIT,

Of Giessen, Germany.

[TRANSLATION.]

A short time since, the representative in Germany of the American banking house of Jay Cooke & Co., and of the Northern Pacific Railroad, came to me with the request that I would give an opinion of the accompanying Report, giving particular information in reference to the construction, the business, and the future of the projected Northern Pacific Railroad, as well as the Land Grant made to it by the Congress of the United States. The occasion of this request was partly some lengthy essays which I published last month on the Union and Central Pacific Railroads, thrown open to traffic since May 10, 1869, on the strength of a journey over it twice, and official documents in *Gaea*, a journal of physical science and geography, issued in Cologne and Leipsic, by Edward Henry Mayer; partly a number of different notices and articles which many American newspapers, German as well as English, published in the kindest manner about my extended travels in America, from Boston, in Massachusetts, to San Francisco, in California, and particularly about my scientific activity manifested in the United States.

Although, during my travels in North America, between October, 1868, and July, 1869, I did not, by personal inspection, make the acquaintance of the regions to be traversed by the Northern Pacific Railroad, still I believe that, without appearing presumptuous, I am able to give an opinion of the same, supported, on the one side, by a knowledge of the most reliable reports yet published, and, on the other side, by oral communications that I took the pains to obtain from residents of that section, during my stay in the United States.

The great importance of a railroad in the direction more particularly noted in the plan has been recognized for a long while. So early as 1845, the idea originated with Asa Whitney, who had been staying in China for a long while, of building a railroad from Lake Michigan to the Columbia River, and from there to the Pacific Ocean.

On the 31st of July, 1846, Judge Breese laid before the Senate of the United States a report in reference to it, expressing himself very strongly in favor of this undertaking; but the carrying out of the project at that time, when the railroad system in America, as elsewhere, was in the first stage of its development, appeared to many entirely too gigantic for accomplishment; and it is by no means surprising that now, when railroad matters have taken so great and so unexpected an impulse—when the Sierra Nevada and the Rocky Mountains have been successfully crossed by the iron rails—active and energetic steps should be taken for the accomplishment of this thought, particularly since the United States Government, in proper acknowledgment of its importance, has given an extremely liberal Land Grant, which, according to the accompanying report, amounts to more than fifty millions of acres.

The Report lays less stress than I expected on the circumstance, not unimportant according to my view, that the Northern Pacific Railroad along the route to be taken by it has not to overcome such powerful obstacles as there were in the crossing of the Sierra Nevada. The enormous expenses incurred by the Central Pacific Railroad in the erection of snow-sheds in these mountains (they amount to \$1,731,000 in gold) are almost unnecessary on the Northern Pacific Railroad. Here preparations for protection against great bodies of snow will have to be made only in a few places exposed to the violence of the wind, and not for miles of the distance. For in this respect the communications made to me agree exactly with the statements contained in various portions of the foregoing Report, that the climate in the regions to be traversed by the Northern Pacific Railroad, although lying more to the North, and although showing in different years very many changes, is decidedly less plentiful in snow than in the higher portions of the Sierra Nevada crossed by the Central Pacific Road; besides even in the latter mountains, there was no disturbance in the traffic during last winter, in consequence of the snow-sheds already mentioned. Another circumstance deserves special mention which the Report, probably regarding it as a well-known fact, does not mention at all, namely, that the climate through all the sections of the country to be

traversed by the projected railroad is without dispute particularly healthy.

Further, the circumstance is very important for the Northern Pacific Railroad that it does not have to cross any so high points as the Union Pacific, whose highest point, Sherman, is about 8,235 feet, or the Central Pacific, whose culminating point, Summit, lies 7,042 feet above the surface of the sea.

It is true that the statements of heights contained in the foregoing Report are not based upon exact measurements, but upon such as may be out of the way a hundred feet or so. (Many decades will pass away before we come into possession of an entirely exact knowledge of the relative heights of the great continent of North America.) While it was necessary, to make possible the crossing of the Sierra Nevada by the Central Pacific Road, to construct fifteen tunnels having a total length of 6,262 feet, along the projected Northern Pacific Road it will be necessary to construct only a few of a very slight extent.

In a quiet and by no means exaggerated manner, the preceding pamphlet considers the value, the variety, and the wealth of the natural resources of the lands granted to the Northern Pacific Road, and of the adjacent country. The new road does not pass through barren regions of any such extent as, up to the present, are still frequently found along the Union Pacific. Even in the eastern portions of Washington Territory, which in general show a sterile character, there is considerable fertile land. The valley of Walla Walla has a rich soil; Mill Creek Valley in the neighborhood of Fort Colville, produces good crops, and extensive plains well calculated for cultivation are found in the neighborhood of the Clear Water and Salmon Rivers.

These waters, as well as the Rivers Wenatchie, Yakima, Okinagan, Columbia, and Clark, contain rich gold beds, and gold has also been found, although in much less quantity, in several small streams that descend from the Olympia Mountains, as well as in Skagit River. It would appear to be beyond all doubt that the completion of the road will bring as a matter of course, the opening up and discovery of valuable mineral and metallic treasure.

The unusual wealth of useful woods mentioned in the Report as occurring in the western part of Washington Territory and Oregon is generally known; the importance of the fisheries is also justly alluded to, which is capable of being materially increased, and also the ease with which grazing farms may be established in many places along the line of the road.

The many advantages which are alluded to in the Report might be placed in a still clearer light by extracts from a lengthy letter which the renowned statistician and connoisseur of the American railroad system, Henry V. Poor, addressed on the 30th of December, 1868, to Hon. Wm. B. Ogden. The writer of said letter, which was published in 1869, in New York, under the title "Influence of the Railroads of the United States in the Creation of its Commerce and Wealth," advocates a Northern Pacific Railroad in the strongest terms. According to my view, as an estimate of the undertaking there should have been extracts from the letter of this recognized authority.

As regards the distances given in the Report, they are, so far as they have reference to the already completed Union and Central Pacific Roads, exact and correct, as also in all essential points along the projected Northern Pacific Road. Besides it is very plain, and a matter of course, that, in a railroad of considerable length, a few miles more or less do not enter into consideration.

The map accompanying the Report serves, in a superficial way, to indicate the proposed line of the road, which may, in the actual accomplishment, be changed in some of its details, which cannot be avoided in such gigantic undertakings.

It scarcely seems necessary to examine more minutely into the brilliant future awaiting the West of America, and the importance it has for the United States, which is daily being more plainly recognized. It will occur to every one that the only road which, at the time of its entire extension, stretches out to the West, taking us from New York, through Chicago, Omaha, and Sacramento to San Francisco, is not sufficient for the country's needs. We can therefore greet with lively joy the proposed Northern Pacific Railroad, which is of so great importance to commerce—for the development and civilization of the Far West—and brings the most important parts of Asia still nearer to us, and rely firmly on the able men at the head that they will accomplish their great task as brilliantly as this was done in spite of loudly expressed fears in the case of the Union Pacific and the Central Pacific, as well as the now partially opened Southern Pacific Railroad.

(Signed)

ROBERT VON SCHLAGINTWEIT.

GIESSEN IN HESSE, end of April, 1870.

ENDORSEMENT OF

W. MILNOR ROBERTS, U. S. CIVIL ENGINEER,

Who conducted the Reconnoissance of the Proposed Route of the Northern Pacific Railroad, made in the Summer of 1869.

ST. LOUIS, May 5, 1870.

JAY COOKE & Co., *Bankers*:

GENTLEMEN: I have read carefully the pamphlet issued by you, dated New York, March 11, 1870, relating to the Northern Pacific Railroad's Land Grant, and the future business of the road. Its statements, in the main, correspond so nearly with the impressions I derived, during my personal reconnoissance of the route between Puget Sound and the Missouri River, and with my study of the country thence to Lake Superior, and along the Canada border, from reliable reports of competent explorers, that I can heartily endorse them.

Some of your predictions respecting the future of this line of road, to one who has not visited the region, or to one who has not, from previous experience, been enabled to estimate its great and manifold advantages, may appear to be somewhat *couleur de rose*, but my own report, made out in good faith from my personal observations and the best information attainable, is liable to the same remark; and you have in your pamphlet embodied additional considerations, with legitimate deductions therefrom, which, in my judgment, are fully warranted by the facts and circumstances.

It may be difficult to convey clearly to those who have seen no portion of the magnificent country traversed by the general route of the Northern Pacific Railroad, a perfect picture of its diversified and remarkable characteristics. It appears to me, however, that you have, in a brief paper, compacted the leading features into a very intelligible shape, upon a truthful basis.

Very respectfully and truly yours,

(Signed)

W. MILNOR ROBERTS.

ENDORSEMENT OF

THE REV. R. B. CLAXTON,

Professor of Biblical Literature in the Philadelphia Divinity School.

PHILADELPHIA, March 26, 1870.

MY DEAR MR. COOKE:

I have read with great interest the pamphlet issued by Jay Cooke & Co., New York, on "The Northern Pacific Railroad's Land Grant, and the Future Business of the Road."

Having, as you know, spent several weeks last summer in California, Oregon, and Washington Territory, and having read very carefully a large number of publications in regard to the section of country through which the Northern Pacific Railroad will pass, I can state that both personal observation and trustworthy testimony satisfy me as to the truth of the statements in this last publication.

In a few instances *superlatives* are used where comparatives would be more satisfactory.

But making all necessary abatements, I believe that the general tenor of the argument of the pamphlet is sound beyond all fear of contradiction; and I have not a doubt that the next twenty years will witness a development of the country through which this road will pass, such as will make the investment required remunerative in a very high degree.

One topic not touched in this pamphlet seems to me worthy of consideration—the attractions of scenery and of climate will bring many thousands of travellers every year over the line of this road. Scientific research will bring its votaries in vast numbers. Men and women, of means and culture, will find attractions here such as can scarcely be exceeded in any journey of similar extent. Those who have visited the Old World will not be content without an intimate acquaintance with this wonderful section of the New; and even young people should be ashamed to visit foreign lands without having first made themselves familiar with these portions of their own grand country.

Yours very truly,

R. BETHELL CLAXTON.

NEW 7-30 GOLD LOAN

OF THE

NORTHERN PACIFIC RAILROAD CO.

SECURED BY FIRST MORTGAGE ON RAILROAD AND LAND GRANT.

SAFE! PROFITABLE! PERMANENT!

WE OFFER FOR SALE AT PAR AND ACCRUED INTEREST, THE FIRST MORTGAGE LAND GRANT GOLD BONDS OF THE NORTHERN PACIFIC RAILROAD COMPANY. THEY ARE FREE OF U. S. TAX, AND ARE ISSUED OF THE FOLLOWING DENOMINATIONS: COUPONS, \$100, \$500, AND \$1000; REGISTERED, \$100, \$500, \$1000, \$5000, AND \$10,000.

GOLD PAYMENT.—Both principal and interest are payable in American gold coin, at the office of Jay Cooke & Co., New York City—the principal at the end of 30 years, and the interest (at the rate of seven and three-tenths per cent. per annum) half-yearly, first of January and July.

THE RATE OF INTEREST is a most convenient as well as profitable one, being seven dollars and thirty cents each year on every hundred dollars, or on the various denominations of bonds as follows:

Two cents per day on each	.	.	.	\$100 bond
Ten " " "	.	.	.	\$500 "
Twenty cents per day on each	.	.	.	\$1,000 "
One dollar per day on each	.	.	.	\$5,000 "
Two dollars per day on each	.	.	.	\$10,000 "

PERFECT SAFETY.—First Mortgage Railroad Bonds are confessedly among the safest of investments. Of the nearly one thousand railroads of our Northern and Western States, whose total bonded debt exceeds \$650,000,000, it is stated that all but three are regularly paying the interest on their first mortgage bonds, and few investments of equal amount can show so small a default in principal. The author of *Poor's Railroad Manual*, a standard authority, says: "It is undoubtedly true that railroad securities have proved to be the most productive investment for capital that we have had for twenty years."

This being true of all ordinary roads, it is doubly true of those which, like the Northern Pacific, have an immense landed property in addition.

The bonds we are now selling, the amount of which cannot in any case exceed \$50,000 per mile of finished road, are secured by a first and only mortgage on all the property and rights of the Northern Pacific Railroad Company, which will embrace on the completion of the work:

1. Over Two Thousand Miles of Road, with rolling stock, buildings, and all other equipments.

2. Over Twenty-two Thousand Acres of Land to every mile of finished road. This land, agricultural, timbered and mineral, amounting in all to more than Fifty Million Acres, consists of alternate sections, reaching twenty to forty miles on each side of the track, and extending in a broad fertile belt from Wisconsin through the richest portions of Minnesota, Dakota, Montana, Idaho, Oregon and Washington, to Puget Sound.

THE LAND GRANT.—The Northern Pacific Railroad Land Grant is larger than the six New England States with Maryland added, or as large as the two States of Ohio and Indiana combined. The average of soil is very fertile and the climate is pleasant and healthful. With the railroad built through the midst of these lands their value can be estimated by the present price of similar lands along the line of other roads. For example, the Illinois Central Railroad grant of only 2,595,000 acres, the sales from which already exceed \$24,000,000, will yield the Company at least \$30,000,000—an average of over \$11 per acre. As the building of the Northern Pacific Railroad progresses, the lands of the Company will be thrown open to sale and settlement at *moderate prices* and on *easy terms of payment*. As each 25-mile section of the road is completed and accepted, the Government conveys to the Railroad Company a proportionate amount (some 600,000 acres) of land. Thus the Company will soon come into full possession of some three millions of acres in Minnesota—this first installment being greater than the entire Illinois Central grant.

EMIGRATION SCHEME.—To facilitate and render certain the rapid sale and settlement of its lands, and to promote the early development of the entire belt of Northwestern States and Territories tributary to the road, the Northern Pacific Railroad Company is now organizing a Department of Emigration. The system adopted is comprehensive, practical, and on a scale hitherto unattempted by any corporation or government. In connection with this work of fostering emigration from Europe, and the thickly peopled parts of our own country, to the Northwest, will be employed some of our most eminent and trustworthy citizens, both native and foreign-born.

THE ROAD NOW BUILDING.—Work was begun in July last on the eastern portion of the line, and the money provided, by the sale to stockholders of some six millions of the Company's bonds, to build and equip the road from Lake Superior across Minnesota to the Red River of the North—233 miles. The grading on this division is now well advanced, the iron is being rapidly laid; several thousand men are at work on the line, and about the first of August next this important section of the road will be in full operation. In the meantime orders have been sent to the Pacific coast for the commencement of the work on the western end in early Spring, and thereafter the work will be pushed, both eastward and westward, with as much speed as may be consistent with solidity and a wise economy.

FUTURE BUSINESS OF THE ROAD.—The business of the Road, immediately on its completion and even during construction, will be very large, and will consist mainly of: 1. The transportation of Government mails, troops and military supplies. 2. The large local carrying trade of the present population of the States and Territories traversed. 3. The entire trade of the important British settlements occupying the rich valleys of the Red and Saskatchewan Rivers, the Winnipeg Basin, and the fertile plains of British Columbia on the Pacific slope. 4. That portion of the large Through Business between the Atlantic and Pacific Oceans which will certainly pass over this line owing to its great superiority in directness, shortness, and ease of grades. 5. The constantly increasing carrying trade of the millions of people who will soon occupy the magnificent country through which the road passes, and the transportation of whose supplies and products alone will speedily constitute a paying business for one line of road.

This Road will unite Lake Superior and St. Paul with Puget Sound—and hence the commerce of the Lakes and of the Mississippi River with that of the Pacific Ocean—by a line, counting actual distance and difference in grades, at least 500 miles shorter than the present one connecting Lake Michigan and San Francisco. By it Liverpool and New York will be brought 1,400 miles nearer than now to the ports of China and Japan. It will be the only trans-continental line under one control.

Branch lines or feeders will be built from the Trunk road, northward and southward, so as to drain the entire region north of latitude 42° and render the future construction of additional east and west lines within that belt unnecessary.

THE MORTGAGE.—For the security of the first mortgage bondholders, and obedient to Act of Congress, the general mortgage covering the property named above is recorded in the office of the Secretary of the Interior at Washington. The Trustees of the mortgage are Messrs. Jay Cooke, of Philadelphia, and J. Edgar Thomson, President of the Pennsylvania Central Railroad Company. These Trustees, who directly represent the bondholders, are required by the terms of the mortgage to see that the proceeds of all sales of First Mortgage Bonds are devoted to the construction and equipment of the road, and that the proceeds of land sales are used in purchasing and cancelling the bonds of the Company if they can be bought before maturity at not more than 10 per cent. premium; otherwise the Trustees are to invest the proceeds of land sales in United States Bonds or Real Estate Mortgages for the further security of Northern Pacific bondholders. At all times until the entire bonded debt of the Railroad Company is paid off and cancelled, the Trustees are required to see that they have in their control, as security, at least 500 acres of average land to every \$1,000 of outstanding first mortgage bonds, besides the railroad itself and all its equipments and franchises.

All bonds issued bear the signature of the President and Treasurer of the Northern Pacific Railroad Company, accompanied by the corporate seal; they are also signed by the Trustees of the mortgage, Jay Cooke and J. Edgar Thomson, and are finally registered and countersigned by the Fidelity Trust and Safe Deposit Company, of Philadelphia.

PROFITABLENESS OF NORTHERN PACIFIC 7-30's.—We are now willing to admit that any investment can be safer than the bonds of the United States, which, as the Government's agents, we placed in the hands of the people of this country and of Europe. But since the Government is no longer a borrower, but is rapidly paying off its existing debt, and as the great work the nation now has in hand is not that of preserving its existence, but that of *developing a continent*, we call the attention of those who desire to increase their income while still having a perfectly reliable investment, to the following facts:

United States 5-20's at their average premium yield the present purchaser less than $5\frac{1}{2}$ per cent. gold interest. Should they be redeemed in five years, and specie payments be resumed, they would really pay only $4\frac{3}{8}$ per cent., or if in three years, only $3\frac{1}{2}$ per cent., as the present premium would meanwhile be sunk.

Northern Pacific 7-30's, selling at par in currency, yield the investor $7\frac{3}{10}$ per cent. gold interest absolutely for thirty years, *free from United States tax*. \$1,100 currency invested now in United States 5-20's will yield per year in gold, say \$62.00. \$1,100 currency invested now in Northern Pacific 7-30's will yield per year in gold, \$80.30. Here is a difference in annual income of nearly *one-third*, besides a difference of 7 to 10 per cent. in principal, when both classes of bonds are redeemed.

With the same entire confidence with which we commended Government bonds to Capitalists and People, we now, after the fullest investigation, recommend these Northern Pacific Railroad bonds to our friends and the general public:

THEIR PERMANENCE.—Capital invested in these bonds cannot be disturbed for thirty years, unless by consent of the holder. The Government fully expects to call in and cancel its 5-20 bonds within two years. Persons holding the latter and desiring a more permanent investment cannot do better than convert them into Northern Pacific Railroad 7-30's.

THEIR NATIONAL CHARACTER.—The Northern Pacific Railroad is chartered by the Congress of the United States; the present loan and the general mortgage to secure it are authorized by special Act of Congress; the mortgage, as required by law, is recorded in the office of the Secretary of the Interior at Washington; each 25-mile section of the road is to be examined and accepted by Government Commissioners; the right of way across the public domain, and construction material, are granted gratuitously by the United States; and finally, while the Government does not directly guarantee the bonds of the Road, it amply provides for their full and prompt payment by an unreserved grant of land, the most valuable ever conferred upon a great national improvement.

BONDS RECEIVABLE FOR LANDS.—By the terms of the mortgage the 7-30 bonds of the Company are always receivable, at par and accrued interest, in payment for the Company's lands at their lowest graded prices; and by an arrangement between the Trustees and the Directors of the Company, in all cash purchases of land from the Railroad 10 per cent. discount will be made from the purchase price whenever the Company's first mortgage bonds are offered in payment. In other words, Northern Pacific 7-30's are, if desired, at all times convertible at 1.10 into real estate at lowest cash prices.

BONDS EXCHANGEABLE.—The registered bonds can be exchanged at any time for coupons, the coupons for registered, and both these can be exchanged for others, payable, principal and interest, at the London and American banking-houses of Jay Cooke & Co., or at any of the principal financial centres of Europe, in the coin of the various European countries. These securities will thus have great currency in the leading money markets of the world.

LIMITED AMOUNT.—The first series of these bonds is now being sold to furnish funds to complete the Northern Pacific Railroad westward to the Great Bend of the Missouri. Should negotiations now pending in Europe result satisfactorily, only a limited amount of these desirable securities will be offered in the American market for some time to come.

HOW TO GET THEM.—Your nearest Bank or Banker will supply these bonds in any desired amount, and of any needed denomination. Persons wishing to exchange other bonds for these, can do so with any of our agents, who will allow the highest current price for all marketable securities.

Those living in localities remote from banks, may send money, or other bonds, directly to us by express, and we will send back Northern Pacific bonds at our own risk, and without cost to the investor. Should further information be desired, any of the Banks or Bankers employed to secure this loan, will be glad to answer all questions, furnish pamphlets, maps, &c., and supply the Seven-Thirties in small or large amounts.

FOR SALE BY

JAY COOKE & CO.

Fiscal Agents Northern Pacific Railroad Co.

114 SOUTH THIRD STREET, PHILADELPHIA: CORNER OF NASSAU AND WALL STREETS, NEW YORK: 452 FIFTEENTH STREET, WASHINGTON, D. C., BY NATIONAL BANKS, AND BY BROKERS GENERALLY THROUGHOUT THE COUNTRY.